

ABSTRACT OF THE DISCLOSURE

A method of removing mercury from a coal fired power plant exhaust gas includes passing the exhaust gas through a bulk particle filter to remove coarse particles, introducing powdered activated carbon into the exhaust gas downstream of the bulk particle filter, introducing mercury laden powdered activated carbon
5 containing exhaust gas into a fine particle filter to separate the mercury containing powdered activated carbon from the exhaust gas, separating the powdered activated carbon from the mercury at an elevated temperature in an inert gas environment and recirculating the separating powdered activated carbon into the exhaust gas upstream
10 from the fine particle filter. The desorption is preferably effected at a temperature of about 300 to 500 °C for about 5 to 60 minutes. The method is adapted to remove mercury which may be on the order of about 1 to 1000 ppm to 1 to 10 micrograms/cubic meter of exhaust gas. Corresponding apparatus is provided.